

CLAIMS

WHAT IS CLAIMED IS:

1. A genetically engineered mammalian cell that has been
5 mutated by a process comprising the insertion of a recombinantly
manipulated polynucleotide sequence into a gene in said
genetically engineered mammalian cell wherein said gene is
identifiable as corresponding to at least one of SEQ ID NOS: 1-
341.

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2. The genetically engineered mammalian cell of Claim 1,
wherein said cell is murine.

15 3. A cell according to Claim 2, wherein said cell is an
embryonic stem cell.

4. The genetically engineered mammalian cell of Claim 1,
wherein said polynucleotide sequence is present on a viral
vector.

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5. A cell according to Claim 4, wherein said viral vector
is a retroviral vector.

25 6. A cell according to Claim 4, wherein said viral vector
additionally comprises regions of targeting DNA that facilitate
gene targeting by homologous recombination.

30 7. An isolated murine embryonic stem cell line comprising
an engineered retroviral gene trap vector in at least one gene
comprising a polynucleotide sequence first disclosed in one of
SEQ ID NOS: 1-341.